(43) Date of Printing by UK Office 02.05.2001

- (21) Application No 0016917.7
- (22) Date of Filing 27.04.2000
- (30) Priority Data (31) 60131106
- (32) 26.04.1999
- (33) US
- (86) International Application Data PCT/IL00/00245 En 27.04.2000
- (87) International Publication Data W000/77431 En 21.12.2000
- (71) Applicant(s)

Shell Internationale Research Maatschappij B.V. (Incorporated in the Netherlands) Department IP/43 Carel Van Bylandtiaen 30, 2596 HR The Hague, Netherlands

(72) Inventor(s)
Robert Lance Cook
David Paul Brisco
R Bruce Stewart
Lev Ring
Richard Carl Haut

- (51) INT CL<sup>7</sup>
  E21B 43/10 33/14 , F16L 13/14
- (52) UK CL (Edition S )
  E1F FJT FLA
  F2G G24D3 G25A
- (56) Documents Cited

GB 2347952 A GB 2347950 A GB 2344606 A
GB 1137310 A EP 0881354 A WO 99/35368 A
WO 98/00626 A US 5924745 A US 4707001 A
US 4703959 A US 4648627 A US 4577895 A
US 4501443 A

- (58) Field of Search
  UK CL (Edition S) E1F F2J FLA, F2G
  INT CL<sup>7</sup> E21B , F16L
  Online: WPI, EPODOC, JAPIO
- (72) cont

  Robert D Mack

  Alan B Dueli

  Andrel G Filippov
- (74) continued overleaf

(54) Abstract Title

Wellbore casing with radially expanded liner extruded off of a mandrel

(57) An expandable threaded connection includes a first tubular member, a second tubular member and a threaded connection for coupling the tubular members that includes one or more sealing members.

**3EST AVAILABLE COP** 

1







Application No:

GB 0016917.7

Claims searched:

Examiner:

David Pepper

Date of search: 25 September 2000

# Patents Act 1977 Search Report under Section 17

## Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): E1F FJT, FLA

Int Cl (Ed.7): E21B

Other:

Online: WPI, EPODOC, JAPIO

### Documents considered to be relevant:

Category	Identity of document and relevant passage		
X,E	GB 2347952 A	(Shell Int Research)	1
X,E	GB 2347950 A	(Shell Int Research)	1
X,E	GB 2344606 A	(Shell Int Research)	1
х	EP 0881354 A	(Sofitech N.V.)	1
х	WO 99/35368 A	(Shell Int Research) - see figure 4	1
х	WO 98/00626 A	(Shell Int Research)	1

than, the filing date of this application.

X Document indicating lack of novelty or inventive step

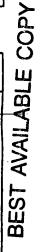
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

<sup>&</sup>amp; Member of the same patent family

A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the

P Document published on or after the declared priority date but before the filing date of this invention.

E Patent document published on or after, but with priority date earlier









Application No:

GB 0016917.7

Claims searched: 43-52 Examiner: Date of search:

David Pepper 25 January 2001

Patents Act 1977 Further Search Report under Section 17

#### Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): F2G

Int Cl (Ed.7): F16L

Other:

Online: WPI, EPODOC, JAPIO

# Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
A	GB 1137310 A	(Commissariat a l'Energie Atomique)	<u>.</u>
A	US 5924745 A	(Petroline Wellsystems Ltd)	
x	US 4707001 A	(Seal-Tech Inc) - see col 5, lines 9-37	43-45
х	US 4703959 A	(Hydril Co)	43-45
х	US 4648627 A	(Dril-Quip Inc) - see col 4, lines 25-39	43-45,47
х	US 4577895 A	(Hub City Works Inc) - see col 2, lines 40-54	43,44
A	US 4501443 A	(Mannesmann Aktiengesellschaft)	•

- Document indicating lack of novelty or inventive step
- Document indicating lack of inventive step if combined with one or more other documents of same category.
- Member of the same patent family
- Document indicating technological background and/or state of the art. Document published on or after the declared priority date but before the filing date of this invention.
- Patent document published on or after, but with priority date earlier than, the filing date of this application.







Application No:

GB 0016917.7

Claims searched: 59-63

Examiner:

David Pepper

Date of search: 25 January 2001

Patents Act 1977
Further Search Report under Section 17

#### Databases searched:

Other:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): ElF FLA

Int Cl (Ed.7): E21B

Online: WPI, EPODOC, JAPIO

## Documents considered to be relevant:

Category	Identity of document and relevant passage				
A,P	GB 2344606 A	(Shell Internationale Research Maatschappij B.V.)	•		
		<u> —</u> .			

BEST AVAILABLE COPY

Document indicating lack of novelty or inventive step
 Document indicating lack of inventive step if combined with one or more other documents of same category.

<sup>&</sup>amp; Member of the same patent family

A Document indicating technological background and/or state of the art.

Document published on or after the declared priority date but before the filing date of this invention.

B Patent document published on or after, but with priority date earlier than, the filing date of this application.